CREATE Science Seminar Series presents:

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“**My Journey to Science Education Research**”

**Abstract:** In this presentation, I will present two topics of my research in science education from a cognitive perspective. First, I will discuss theories/frameworks of nature of models and modeling first and then provide with some empirical evidence to show how model- and modeling-based instruction and assessment can be implemented in school science practice. Second, I will introduce a series of studies about how *facial microexpression states (FMES)* play their roles on predicting students’ conceptual change status in counter-intuitive scenarios. Both cases might provide some implications for deep learning of sciences.

**Bio:** Mei-Hung Chiu is a Professor of Science Education at the Graduate Institute of Science Education (GISE) of the National Taiwan Normal University (NTNU). She has a BS in chemistry (National Taiwan Normal University), Ed.M. and Ed.D. from Harvard University. She has published articles about chemistry curriculum, students’ conceptual understanding and changes as well as mental models in science learning in international well-known journals, such as Journal of Research in Science Teaching (JRST, SSCI journal), Science Education (SSCI), International Journal of Science Education (IJSE, SSCI journal), International Journal of Science and Mathematics Education (IJSME, SSCI), Chemical Education Theory and Practice (CERP, SSCI), Journal of Chemical Education (JCE, SCI/SSCI), British Journal of Educational Technology (BJET, SSCI), and co-edited books (such as Celebrating the 100th Anniversary of Madame Marie Sklodowska Curie’s Nobel Prize in Chemistry). Her research interests are conceptual change, science learning, mental models, facial microexpression change, mobile technology, and alternative assessment in science teaching and learning.

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